1: Freeman E-5 (1949-1951)1955 OC6 Iban OC6

Part III

AGRICULTURE

Introduction

56. The subsistence economy of the Iban, and indeed, their whole way of life, is based upon the cultivation of hill rice, and it is to this subject which we now turn. Iban absorption in the growing of *padi* is complete, for each year every *bilek* family produces its own crop of rice; and it is upon skill in farming that the prosperity, and the very existence of an Iban family depends. The method they employ is that of shifting cultivation, and it is with this much condemned, and little understood system of agriculture that we shall be chiefly concerned. In the main my data are drawn from a detailed study of agricultural practice in one Iban community: Rumah Nyala, of the Sungai Sut; but this information is supported by observations made in many other parts of the Baleh, the middle Rejang, the Katibas, and the Ulu Batang Ai.

57. To what extent, it may be asked, are conditions in the Baleh typical of the Iban as a whole? An accurate answer to this question would require a very extensive survey, for the Iban are now established in all five Divisions of Sarawak. Such a survey has not yet been carried out, and in its absence, only a tentative estimate can be made. The Baleh is essentially a pioneer area, but in this respect it is not exceptional. At the beginning of the nineteenth century there were probably no Iban living north of the southern watershed of the Rejang basin, whereas to-day approximately 60% of the Iban population is settled northward of this line. The majority of these 'immigrants' occupy what may be regarded as pioneer areas. For our present purposes, a pioneer area may be defined as any hill region in which some of the Iban settlers are still felling and farming primary jungle (*kampong amat*). If this criterion be accepted, pioneer areas may be said to exist in the Kanowit, Kapit, Oya, Mukah, and Bintulu districts, and even in certain of the remote hill districts of the Second Division. In all of these regions, Iban farmers are following traditional methods of shifting cultivation, which are fundamentally the same as those current in the Baleh; and I estimate that the system described in this report is generally typical of the agricultural practice of at least from fifty to sixty per cent of the Iban population of Sarawak.

58. The Baleh, which falls within the 'undeveloped interior zone' of Sarawak, is an extremely hilly, and in places, a mountainous region. Ridges a few hundred feet in height, rise range upon range, to mountain massifs of three thousand feet and more. At the head of the Mujong, stand the Hose Mountains—a grotesquely shaped chain of limestone peaks, the one-time refuge of Iban rebels. Bukit Batu, of some 5,500 feet, is the highest of them. The rainfall is heavy (150 inches, and over, per annum), and the whole area is reticulated by an intricate system of fast flowing rivers and tributary streams. Almost everywhere the hills rise abruptly from the valleys, and river flats are rare. With a few negligible exceptions, there

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X243 91. At the conclusion of *nebang* there is a lull for several weeks while the fallen trees dry out in the tropical sun (Plate 8). A conscientious farmer will devote part of this period of waiting to the work of cutting away the branches of the larger trees, and casting them to the ground, so as to build up aggregations of boughs and brushwood, that greatly improve the chance of a good burn. This operation, which is called *ngeredak* by the Iban, becomes of particular importance when bad weather is encountered. Such a subsidiary cutting over of a farm is onerous work however, involving long hours of precarious scrambling among tangled and splintered branches, and very few men tackle the job with thoroughness. There is a definite enough reason behind this reluctance. If really dry weather ensues—say a spell of a fortnight or more without rain—then the farm will burn well even though the trees have been left just as they fell. In this contingency all the arduous work put into *ngeredak* goes for naught. Most men devote a few days to a perfunctory second cutting over of their farms, and then turn to other tasks, trusting to fortune, fervently hoping that magic and traditional ritual observances will bring about the rainless skies that all desire.

The Firing of the Farms

92. For the shifting cultivator the procuring of a good burn is a factor of overwhelming importance. The Iban are fully aware of this, and it is a commonplace amongst them that only after a successful burn will crops be heavy and abundant. Several times I overheard the remark: "If the farm be completely burnt, then the *padi* wants to grow"; and on one occasion when I was examining the damage done to his *padi* by locusts, old Nyala commented ruefully: "If the farm be really burnt, all the insects perish, and when they return the *padi* is already flourishing." (*"Enti angus amat umai, indu utai parai samoa, bisi datai ila udah baoh padi"*). Crop failures are often attributed to a bad burn.

X243 ●132 93. The success of the burn depends primarily on the weather, but so variable is the rainfall from year to year, and from month to month within the period that elapses between the end of one North-East Monsoon and the onset of the next, that the Iban are not able to plan this stage of their farming activities with any degree of certainty. Each year they hope for and anticipate a dry spell, but just when it will fall nobody knows, and there is always the disquieting memory of seasons when the rain ceased for not more than a few days on end, and many burns were dismal failures. The weeks that follow the completion of *nebang* are weeks of anxiety, and the state of the weather is most carefully watched and endlessly discussed. Years do occur when something of a drought (*kamarau*) sets in; for three weeks there may be clear skies with a burning sun that twists and buckles the bark of fallen trees and parches the leafy floor of the jungle to the dryness of tinder. It is for this that every Iban prays: "In health and happiness may we dwell in this land; and when we fire our farms may they fiercely burn; it is for a drought that we plead." In other years downpour follows downpour, and weeds spring up thickly amid the soaked and cluttered brushwood with which the farm is strewn. When the season is bad, with but brief interludes of fine weather, coming to a decision is no easy matter; indeed, the correct timing of the burn is one of the capital difficulties of Iban farming. When, after several weeks of adverse conditions, the weather changes and for four or five days there is no rain, can it be relied upon to hold, or this a temporary lull, the prelude to even heavier downfalls? This is the dilemma that faces the Iban farmer, and he must solve it as best he can on the basis of past experience. It is easy enough to be

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wise after the event, but life must be lived forwards, not backwards. As the season advances and the onset of the monsoon draws nearer, anxiety increases, and if by the end of August, the farms are still unfired, the whole community turns to magic and ritual, to invoking the gods who govern the elements, and pleading with them by supplication and sacrifice for a brief span of fine weather before it is too late.

94. To illustrate this general situation let us take the felling season of 1949, which happened to be exceptionally wet.[1] At Rumah Nyala, the first rites of the new season began on 1st June. By the third week in July the clearing of almost all of the *damun* farms had been completed, and work on the *kampong* farms came to an end during the first few days of August. The felling had been accomplished without mishap, and throughout the community there was a buoyant and confident spirit. On 13th August, offerings were made to the spirits of the sun, the moon and the stars (an innovation this, which swept the Baleh region during 1949), and by an intricate series of ritual acts the *padi* seed of each *bilek* family was consecrated in readiness for sowing. Immediately afterwards, a conference (*baum*) was held to discuss the burn. The weather during the first half of August had been fine, and it was decided that the firing of the farms should start in two days—on 15th August. But soon after the meeting had broken up, rain began to fall and it continued in torrents throughout the night. On the morning of 14th August, the farms were saturated, and the streams in muddy, swirling flood. The wet weather continued, and by the end of the month the mood of the long-house had completely changed. On all sides there was despondency and much foreboding of the poor crops, hunger and suffering which would result from a bad and late burn. As the rain went on into September, apprehension heightened into alarm, and on 8th September, representatives of the entire community (led by the *tuai burong*) assembled to perform a *gawai minta ari*—a ritual imploring fine weather of the gods.[2] For four days and nights the rites continued, but without avail, and early on 12th September, with rain still falling, the disconsolate farmers dispersed to their separate *dampa*. Later that same morning the weather cleared, and the next day was also fine; another meeting was hurriedly summoned, and on the afternoon of 14th September, most of the farms of Rumah Nyala were fired. Not one of them burnt well. After less than three full days of sunshine only the lighter twigs and stems had dried out, and while these flared up momentarily the rest of the fallen timber, which had been lying about for six or seven weeks, failed to burn. The farms were left thickly strewn with charred boughs and branches, and in some instances the firing was such a failure that tracts of land an acre and more in extent had to be abandoned.

95. As it transpired the dry weather held, with only one or two slight showers, until the night of 24th September, giving a total of about 12 moderately fine days.

[1] Records taken at Kapit show that 17·40 inches fell in May, 9·55 inches in June, 11·23 inches in July, 13·81 inches in August, and 12·76 inches in September. The total for the year —1949—was 155·75 inches. (For these figures I am indebted to Mr. D. L. Leach, Director of Lands and Surveys, Sarawak).

[2] One of the ritual devices employed at Rumah Nyala was remarkable. Offerings were made to the rain spirits, and then a fishing basket (*pemantai*), with an open weave, and quite unable to hold water, was exposed on the *tanju* of the *dampa*. The *tuai burong* then uttered these despairing words:

"It is with you, oh fishing basket that we plead for fine weather;
Thus we have filled you with offerings abundant, offerings unstinted.
If you, oh Rain Spirits, can fill this fishing basket do not stop the rain from falling,
But if you fail to fill it, stop utterly the rain.
Oh do not mock our efforts!"

243 In retrospect it is plain that 24th September was the day when best results would
132 have been obtained, but after the consistently bad weather of late August and early September and with the imminence of the wet season, no farmer was in a mood for running risks. As we have seen most of the community took a panic decision and fired their farms on 14th September, after little more than two days of sunshine; in all these cases the burn was a bad one. Three *bilek* families, however, who were working *damun* land in the lower Sungai Nyunggau, did hold on until 21st September, and obtained burns which were a very marked improvement on those of the rest of the house. During this critical period the Iban often sought my advice, asking if Europeans did not have some method of controlling the rain, or, at least, of foretelling the weather. But without proper meteorological forecasts nothing could be done to help them, and one was made keenly aware of the uncertainty that besets the primitive cultivator. For him, the forces of nature are fickle and unpredictable, and the magic and ritual to which he has recourse are the best stratagems he knows for coping with problems that are essentially intractable. And the uncertainty is sharpened by the fact that the very subsistence of a man and his family depends on the sort of solution that is reached.

96. During 1949, several long-houses in the headwaters of the Sungai Sut succeeded in firing their farms early in August, before the deterioration of the weather, and they had completed the sowing of their *padi* before the first of the burns at Rumah Nyala took place. From all accounts this sort of thing is a commonplace occurrence. Farms may be fired at any time from early August to late September, and within each district it is usual to find a considerable range of variation in the dates on which farms are fired. Indeed, when the *dampa* system is being followed, there is sometimes a gap of a month or more, between *dampa* groups within the same long-house community.

243 97. Should the farm of a *bilek* family stand all alone on its hill-side, its owners may fire it whenever they think fit, though it is usual to make a public announcement of their plans. When farms have common boundaries with one another, on the other hand, it is obligatory for all the *bilek* families concerned to confer together, and come to a common decision. This is necessary for two main reasons:
[731] (*a*) to avoid the possibility of accident, for in a dry season the blaze can spread with such speed that persons on adjoining farms may be trapped and burnt to
[688] death;[1] and (*b*) to avert the danger of the blaze spreading and causing damage to the ritual whet stone (*batu manggol*) of another *bilek* family—a serious offence this.

243 98. To fire (*nunu*, v.f. *nunu*) a farm, large torches (*sempun*) of lashed bark are
372 used. These torches, which have been prepared in advance, are lit at the *dampa*, and the men of each *bilek* family hurry off to the foot of their *umai*. Without delay, but in silence, the fire is started in three separate places; then, shouting at
[774] the top of his voice, each man calls upon the Wind Spirits to fling themselves upon the farm, and the Fire Spirits to devour every branch and bough, and leave nothing but ashes behind them.[2] After a drought (*kamarau*) of three weeks or

[1] The Iban tell stories of this happening, and a number of cases of men being 'burnt alive' during the firing of the farms are recorded in the "Sarawak Gazette"; e.g. 1893, p. 171, and 1901, p. 237.

782 [2] As an example of the prayers (*sampi*), which are uttered at the firing of a farm, let me quote the following version collected at Rumah Nyala in 1949:
"Oh Wind Spirits where are you?
Oh call, oh summon your kith and your kin, your offspring, your people all;

1: Freeman E-5 (1949-1951)1955 OC6 Iban OC6

areas where it has all been felled, the inhabitants find themselves in something of a plight, and long journeys have to be made to secure essential materials. Again, proximity to *kampong* ensures good and varied supplies of food—relishes to enliven the monotony of rice—for in the rain forest there are many opportunities for the hunter, and the streams are well stocked with fish.

The Krukoh Method

268. In the ordinary course of events the magico-religious rites that precede the felling of virgin jungle are performed in May or early June, and thereafter the cycle of cultivation follows the course already described. By the time reaping is completed, in the following March or April, regeneration of the forest has begun—young plants are springing up amid the *padi* stubble (*ierami*), and in the places least affected by the burn there is vigorous coppice growth. By July, a dense, though still diminutive scrub has established itself, and the farm has reached the *krukoh* stage.

269. When pioneering virgin territory it is normal Iban practice to slash this *krukoh* scrub in late July or early August, and after it has been fired, to sow the land once more with *padi*—that is, for a second year in succession. To farm in this way is to *ngrukoh*, or to *bekrukoh*, and for the Iban it is the generally accepted mode of procedure when virgin jungle is being worked. In all the pioneer areas visited by me, *krukoh* farming was an established practice. The Iban themselves look upon it as completely normal, legitimate and economic; and from their testimony (I discussed this matter with scores of different informants), it is clear that *krukoh* farming has been a customary method of land usage for very many years. We need not be surprised at this state of affairs, for the practice of taking two or three consecutive crops from forest land has been reported from many other parts of South-East Asia.[1] Indeed it seems to be the prevalent system among shifting cultivators who have ample reserves of forest land at their disposal.

270. Among the Iban it does sometimes happen that the whole of a *kampong* farm is cultivated for two years in succession, but the much more common system is to re-plant only about one-half to two-thirds of the old farm, and to make up the desired acreage by felling a further area of virgin forest. All of the *bilek* families whose farms contained a substantial proportion of virgin jungle in 1949-50, adopted this method. Iban social organization being what it is, there are in this system of gradual advance certain definite advantages. The *bilek* family, which is the basic unit in Iban agriculture, is restricted in numbers, and many *bilek* families have only one male in their labour team. This means that for many families the task of felling three or four acres of virgin jungle is a formidable one, and difficult to maintain year after year. If, however, an initial area of say three acres is felled, and about half of it cultivated for two years in succession, then the family concerned has only to clear one to two acres of new jungle to bring its farm up to the required size. By adopting this method a *bilek* family is able to farm well within its labour resources, and—at the same time—steadily to increase its land holdings.

271. A further advantage of this twofold system (from the Iban point of view) is that it lessens the chance of adverse weather interfering with the all-important

[1] For example, the cultivation of hill *padi* for two or more consecutive years has been reported in Malaya ("Padi Planting Methods in Malaya," M. A. J., Vol. 27, 1939, p. 58), in Sumatra (Danhof, 1946, p. 19[illegible]), in the Philippines (Copeland, 1924, p. 22) and in Southern India (Ramiah, 1937, p. [illegible] and Furer-Haimendorf, 1945, p. [illegible] seq.).

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burn. One of the hazards of farming virgin jungle is the Borneo climate. In the interior of Sarawak the rainfall is heavy, and falls of 160 inches and more per annum are not uncommon. In general, June and July are the driest months, but the rainfall is never really low. Records taken at Kapit, for the four years 1948-1951, show a monthly mean of 7·66 inches for June, and 8·17 inches for July. But this comparatively 'dry period' cannot be relied upon. In 1949, for example, 17·40 inches fell in May, 9·55 inches in June, 11·33 inches in July, 13·81 inches in August, and 12·76 inches in September; so that in this year there was no *kamarau*, or dry season. When adverse weather, such as this, is encountered, *kampong* farms suffer the most, for virgin forest needs a longer 'dry period' than any other type of jungle. In contrast, slashed *krukoh* requires the briefest dry spell of all, and will burn well after about five days of tropical sunshine. Even in adverse years a brief span of hot, dry weather often occurs, and *krukoh* land can often be successfully fired under conditions inadequate fo. the proper firing of an *umai kampong*.

272. But there are also several other factors which prompt Iban addiction to *krukoh* farming. Of most importance is the fact that, in general, the yield obtained from *krukoh* land is usually as good—and not infrequently better—than the yield taken from *kampong* land. The *krukoh* scrub which springs up after the first harvest is vigorous and contains few, if any, of the weeds that are the great bugbear of the Iban farmer. Thus, when *krukoh* has been slashed and burned, the land is still predominantly free from weed infestation, and at the same time there is sufficient richness in the soil to assure a second crop of excellent quality. A thoroughly burnt *krukoh* farm may well produce a heavier crop than a poorly fired *kampong* farm. The Iban are fully aware that good virgin land is capable, under favourable conditions, of producing two consecutive crops of the highest quality; and it is understandable—if not excusable—that they should yield to the temptation of trying to grow and reap them. That two successive and abundant crops can be harvested from *kampong* land is an undoubted fact, and it is important that this should be realized. It is also true that successive cropping inflicts permanent injury on the land; but cognizance of this consequence calls for an appreciation of principles of good husbandry which the Iban—alas—do not possess.

Iban Prodigality

273. Of the fact that the Iban are prodigal of the land there can be no doubt. They are, indeed, *mangeurs de bois*. It is not difficult to explain why they have become like this. Ever since they broke into the Rejang basin more than a hundred years ago, the Iban have had before them limitless tracts of virgin rain-forest. As the Tuan Muda (later Sir Charles Brooke—the Second Rajah of Sarawak) records in his journal of 1863, the middle Rejang and the Baleh were, at that time virtually uninhabited, and "clothed with rich, untouched vegetation"; with virgin forests that were "luxuriant to the wildest extent". From their numerous forays into Kayan country, the Iban well knew the vastness of these primeval forests—which were theirs for the taking. In these circumstances of super-abundance, the forest became an expendable resource. The impulse of the Iban was to extract all the wealth they could from the nearest virgin land, and then move on to fresh fields. (This also had the effect of opening up many new opportunities for head-hunting, the looting of enemy property, and the taking of slaves). In a sense, the Iban became semi-nomadic, for in one generation many *bilek* families moved forward, in stages, over fifty to a hundred miles of territory,

134 found and where alluvium is deposited by overflowing rivers. Examples of the former are found in the area of the 6th mile, Durin Road, where farms produce outstanding yields of rice though cultivated year after year. The latter conditions occur on the banks and promontories of the Batang Igan, especially between Sungai Merah and Tanjong Penasu, where annual deposits of alluvial soils replenish the nutrients at the expense of upriver lands whence the soils have eroded. Farmers in those areas on the Igan profitably cultivate the same plots annually.

Generally, however, the soils in the Sibu District are relatively poor for frequent cultivation, a fact which becomes more important in light of population increases and shorter periods of fallowing, and the farmer who is able to grow enough rice to last him from one harvest to the next is one of a minority.[2]

2. Water

132 133 The data from the meteorological station in Sibu provide information which may be taken as representative for the District, and reveal a highly erratic picture of rainfall and flooding. With only a few interruptions, records exist for the past 33 years and a summary of

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[657] [2] The Welfare Department supplied an average of three kati (1-1/3 pounds) to occupants of 75 longhouses in the Sibu District in 1971. In longhouses surveyed, 36% produced enough rice for the full year.

132 133 those data for 1915 - 1957 (Scott 1964-4) appears in Figure 1. During that period, the average total rainfall was 126.13 inches per annum.

132 It is impossible to easily characterize the distribution of rainfall throughout the year, apart from Mohr's classification (1944) of the District as being within a "continuously wet belt," as is the whole state. On the average, the wettest month is January with over 13 inches of rain, and the driest month is June with 7½ inches. Over 10 inches of rain fall on average in every month between September and April. Monthly averages oversimplify the picture, however, as Figure 1 indicates. For the wet season occasionally fails to develop and less than 5 inches have been recorded in both January and February. In other years it develops late and extreme values of about 30 inches have been recorded in both March and April.

133 The Sibu District is part of the great Rejang Delta with its labyrinth of streams and channels cutting through the swamps. On account of the flatness of the land and the tremendous volume of water, the water-table in much of the District is only inches below the surface of the land. Although Sibu is about 80 miles from the sea, like the rest of the District it is but a few feet above sea-level, and is affected twice daily by tides. Underground rivers course through some low-lying regions and have played havoc with road-building projects.

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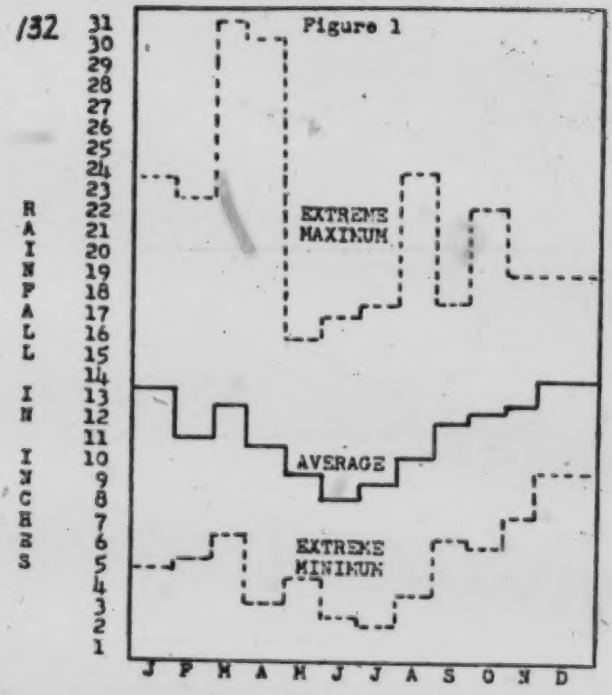
Figure 1
RAINFALL IN INCHES
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EXTREME MINIMUM
J F M A M J J A S O N D

The combination of the erratic picture of rainfall, a great amount of water, flat land and high tides, makes prediction of water levels hazardous in the extreme, and when heavy rains coincide with high tides, flooding is likely to occur. This element of uncertainty is of great importance to both hill - and wet-rice farmers.

For the past three years, i.e., the agricultural years of July to March, 1969 to 1971, forty per cent of the Ibans surveyed in the Sibu District claimed to have been caught out by early rains or to have lost their crops to flooding. Some anticipated a short but sufficient dry season in late June or July and cleared accordingly, only to have rains come after their land was cleared and the brief dry season earlier. In 1971, there were two short dry spells and some who were not ready to burn in the first one at the end of May were able to take advantage of the latter one in August.[3] Farmers in low-lying areas

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[3] Formerly, Iban horticultural activities in all areas were carried out according to the positions of three principal constellations: the Pleiades (bintang banyak), Orion (bintang tiga), and Sirius (bintang Tangkong peredah). These stars are still followed in the schedules of some Ibans, especially in remoter areas, where it is said, "If there were no stars we Iban would be lost, not knowing when to plant; we live by the stars" (Freeman 1955-40). Stellar lore is rapidly disappearing in this District and temporal orientation is increasingly based on the calendar; for example, the ritual beginning of horticulture is fixed on June 1st when the Gawai Dayak is observed. This, also, has obvious problems, because of unseasonable rains.

18:Sutlive E,M-5 (1957-1971) 1973 OC6 Iban OC6
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132 where wet-rice is cultivated are not so affected by unseasonable rains,
133 for with the introduction and use of herbicides, they can easily clear
243 and burn their farms in the dry weather available. But these farmers are more vulnerable and have suffered losses due to flooding at different times of the horticultural year. In 1970, some farms were flooded in the Pasai Bon area when the rice was coming to fruit, others when the rice was ripe and the panicles so heavy that they fell over into the water and rotted. At the time of this writing, the District's lowlands have been inundated with from one to three feet of fetid water in an unseasonable August flood, just at the end of the Ibans' clearing their farms and before they could transplant. Those who made their seed-beds (chemi') in low-lying areas lost the young shoots (anak padi) under the water. As Ganai, Apai Gaun from Rumah Nyala, Sungai Aup, complained, "This is the third (consecutive) year our farms have failed on account of rain" (Tu'meh ketiga taun umai kami enda' nyadi setegal ujan).

3. Minerals

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[135] The Sibu District is marked by a singular absence of valuable minerals, and mining industries play a relatively small part in the whole of the Sarawak economy. With the exception of oil, mining has been concentrated entirely in Sarawak west of the Batang Lupar, and there seems little likelihood of any significant discoveries being made

18:Sutlive E,M-5 (1957-1971) 1973 OC6 Iban OC6
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000 in the District.[4] Regarding the relatively minor importance of mining in Sarawak, Jackson reports:

> "At present, mining contributes less than 4 per cent of the value of Sarawak's total exports excluding re-exports of petroleum piped from Brunei; moreover, it provides employment for less than 2,000 people' (1968-138).

4. Vegetation

The combination of high temperatures, ranging from 72°F (22.2°C) to 88°F (31.1° C), and an annual rainfall of 100 to 180 inches promotes the continuous and luxuriant plant growth that has earned for Borneo the epithet, "the evergreen island." Three-quarters of Sarawak is still covered by primary forest, and the remaining one-quarter is comprised of secondary growth and lalang Savannah, areas of settled cultivation and shifting cultivation, and urban areas. Location, soil type and altitude produce marked vegetation zones varying from extensive stretches of swamp forest on the coastal plains to the montane forest on the Indonesian border.

The Sibu District is comprised of several vegetation zones, including mangrove and nipa palm (Nipa fruticans) swamps, mixed swamp forest and alan forest, interspersed with areas cleared for cultivation.

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[4] Representatives of a Japanese company are taking samples for analysis from some areas, for example, Lubok Guchi, Sungai Assan.

195 bringing. One year later, 22,000 piculs were exported from Sibu in
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314 the one month of November, 1948, and in 1950, Government reports complained of the problems of recruiting labor and predicted the failure of rice crops that were neglected by planters taking advantage
[464] of the rubber boom. At present, many Ibans are hiring out as coolies
[434] for two to three dollars a day rather than tap rubber which is bringing about $45 per picul.[23] When prices are up, rubber is tapped. When it is more profitable to engage in other activities, rubber is left alone.

Another reason why the local trade is variable is the erratic
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314 rainfall which has been described (pages 15-19). Rainfall at night or in the early morning makes rubber tapping impossible, and during months of heavy rain the production of rubber drops appreciably.

In addition to rainfall and fluctuating prices, another reason
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314 for variations in the rubber trade is the seasonal activities of rice

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[23] The "Annual Report of the Department of Agriculture, Third Division, Upper Rejang, For the Year 1970," contains the following indictment: "Due to the decline in prices down to the 50's the exports of rubber from Sibu and presumably the production went down three fold as compared to 1969. Many small holders have stopped tapping their trees and (are) turning elsewhere for their livelihood. This short sighted policy on the part of our farmers is a definite drawback as it hampers the Government's efforts to stabilise the rubber market." (pages 13-14). The small holder, however, has no alternative other than exploiting the part(s) of his environment which offers the greatest rewards at any one time.

18:Sutlive E,M-5 (1957-1971) 1973 OC6 Iban OC6
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221 cultivation. During the months of May to August, when clearing and
243 planting takes place, and March and April, when harvesting and
314 storing is done, the time given to rubber tapping is much less than during the other months. In some families with more members, a division of labor is arranged so that both rice farming and rubber production, for food and cash, are carried on.

455 Still another reason for variations is the tendency at all
648 levels, from tapper to trader to exporter, to speculate and hold back
439 quantities of rubber against a rise in prices which sometimes occurs, though recently not by very much. It is not uncommon to find several scores of rubber sheets hanging in village shops or lesser amounts in the dapor section of a bilik, being held until prices rise or until the owners make a trip to the pasar. Many small holders cannot afford the luxury of such speculation, even on a small scale, and must sell soon after processing the sheets regardless of prices.

800 The fluctuations in the rubber trade may be seen on the follow-
[132] ing page in Table 2, in which rubber exports are correlated with the amount of rainfall and prices during the months of 1970. Two other factors must be kept in mind: (1) the months from March to August are times when rice cultivation and harvesting require a major proportion of work, if a successful crop is to be had, and (2) the prices given are exporters' prices, the small holder receiving considerably less.

18:Sutlive E,M-5 (1957-1971) 1973 OC6 Iban OC6 Sibu

TABLE 2

Rainfall, Prices and Rubber Exports
Sibu, 1970

Month	Rainfall Inches	Rainfall Days	Dollars per Picul[24] RSS No. 4	RSS No. 5	Rubber (in piculs) Smoked Sheets	Remilled
January	17.36	27	66.25	64.25	9,178.43	1,247.42
February	7.92	8	66.00	64.00	5,221.07	917.42
March	10.10	18	61.75	59.50	6,599.59	1,460.19
April	11.63	25	59.75	58.25	5,598.57	1,107.39
May	8.65	21	58.75	57.00	5,742.81	916.98
June	5.66	15	59.75	57.75	8,068.22	1,237.57
July	9.53	20	57.75	55.50	7,071.35	1,178.10
August	8.50	20	53.50	51.50	8,129.79	1,022.01
September	10.83	21	50.75	49.25	9,450.03	594.30
October	5.21	18	47.25	45.50	9,158.79	728.03
November	8.30	27	50.00	48.00	5,758.18	1,339.09
December	10.53	24	49.00	47.50	7,564.22	1,264.22
Totals	114.22	244	55.29[25]	54.66[25]	87,541.05	13,012.31

[24]Unsmoked rubber averaged $11.98 less than RSS No. 5 per picul.

[25]Mean averages. Annual Report, Department of Agriculture, 1970, page 3.